

Exploring MSW students' and social workers' orientation toward the evidence-based practice process

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ABSTRACT

The aim of this exploratory study was to assess whether practicing social workers currently enrolled in Master Social Work (MSW) programs (hereafter referred to as MSW students) were more oriented to the evidence-based practice (EBP) process and more engaged in it than practicing social workers who are not currently enrolled in MSW programs (hereafter referred to as social workers) in the Netherlands. Data were collected from MSW students ($n = 32$) and from social workers ($n = 341$) using the EBP Process Assessment Scale. MSW students reported a stronger orientation toward the EBP process, more positive attitudes toward EBP, more familiarity with EBP and more intentions to engage in EBP than social workers did, however, they were less positive about the feasibility of implementing EBP in practice. These preliminary results suggest that there are grounds for optimism about MSW students' acceptance of and engagement in the EBP process. Implications for social work education are discussed.

KEYWORDS

Evidence-based practice; implementation; social work education; Master Social Work students' views; survey

From the start of the twenty-first century, the Dutch government, local authorities, and funding bodies have been demanding more accountability and effectiveness in social work, leading to increasing attention for evidence-based practice (EBP) as a means of professionalization in social work (Steyaert, Van Den Biggelaar, & Peels, 2010). In 2008, a professional Master Social Work (MSW) program for universities of applied sciences (UASs) (*Hogescholen*) was funded by the Dutch government to deliver professionals who focus on the effectiveness of interventions and accountability of the profession (van Pelt, Hutschemaekers, Slegers, & van Hattum, 2015). The new professional MSW program is a two-year part-time degree program for practicing social workers (who remain working in practice during the program). Currently three UASs in the Netherlands offer the new MSW program and one UAS offers a Master Healthcare and Social Work. This study explores the orientation toward the EBP process of social workers currently enrolled in the MSW program in the Netherlands. In order to contextualize this study, we first provide a brief

description of social work education and the MSW program, social work practice and EBP in the Netherlands.

The MSW program responded to the need for a level of education and experience that exceeded the higher professional education level. Before 2008, social work education in the Netherlands existed of intermediate professional education, higher professional education, and one professional Master Healthcare and Social Work. Unlike other countries, the Netherlands has no MSW program offered by research universities. The Dutch professional Master programs at institutions are comparable to the Swiss and German situation in which UASs (institutions for higher professional education) are also allowed to offer part-time Masters for experienced professionals (van Pelt et al., 2015).

In the Netherlands, social workers are active in social and community work in a broad sense. Professionals employed in social welfare and social services organizations offer community work, social work, youth work, debt counseling, welfare assistance, shelter for the homeless, social work with the elderly, day care, and support for refugees and asylum seekers. The *Nederlandse Vereniging van Maatschappelijk Werkers* ([NVMW] National Association of Social Workers) has a professional register, a professional code and disciplinary rules, but social workers are not obliged to register.

The perspective taken in this study is the mainstream view that EBP is a decision-making process that emanates from evidence-based medicine (Gray, Joy, Plath, & Webb, 2014; Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). The EBP process has been defined by its founders as a process that involves 'the integration of best research evidence with clinical expertise and patient values' (Sackett et al., 2000, p. 1). The process involves five steps: (1) formulating an answerable practice question; (2) searching for the best research evidence; (3) critically appraising the research evidence; (4) selecting the best intervention after integrating the research evidence with clinical expertise and client characteristics, preferences, and values; and (5) evaluating practice decisions (Straus, Richardson, Glasziou, & Haynes, 2005).

The introduction of EBP in social work has generated considerable debate about the merits and feasibility of EBP in social work practice. Some critique is based on epistemological and methodological grounds (Avby, Nilsen, & Abrandt Dahlgren, 2014). Arguments also used against EBP: (a) it denigrates professional expertise, (b) it ignores clients' values, preferences, and circumstances, (c) it promotes a 'cookbook' approach to practice (Rubin & Parrish, 2007). Mullen and Streiner (2004) have labeled these objections as misperceptions of EBP and indicate that the EBP process explicitly builds professional expertise and clients' wishes into the equation. Another objection to EBP is based on the limited availability of evidence in some areas of practice, although proponents argue that practitioners can nevertheless use the best available evidence and process cautiously, and monitor outcomes (Moriarty & Manthorpe, 2016; Mullen & Streiner, 2004).

The field of social work has struggled to define and implement the EBP process (Traube, Pohle, & Barley, 2012). Several authors have recently argued that it is important to distinguish the singular term EBP 'process' from the plural term 'evidence-based practices' (or more correctly, empirically supported treatments or empirically supported interventions) (Parrish & Rubin, 2012). The latter refers to interventions for which there is consistent scientific evidence showing that they improve client outcomes. In contrast, the EBP process has been defined by its founders as a process that involves 'the integration of best research evidence with clinical expertise and patient values' (Sackett et al., 2000, p. 1). The EBP

process acknowledges the importance of both clinical expertise and client characteristics/values, along with the consideration of the best available evidence when making practice decisions (Rubin & Parrish, 2011). This study does not focus on ‘evidence-based practices’, but solely on the EBP process. This is considered to be more suitable in practice situations, because it allows for flexibility in considering the best available research evidence within the complexities encountered in the practice setting, such as varied client characteristics and presenting issues, agency contexts, and practitioner expertise (Bender, Altschul, Yoder, Parrish, & Nickels, 2014; Jaynes, 2014).

Prior research shows however that there are ample grounds for skepticism about the extent of Dutch social work practitioner acceptance of and engagement in the EBP process (Van der Zwet, Beneken genaamd Kolmer, & Schalk, 2016). In a previous literature study, we found that social workers’ lack of research skills and suspicious attitude (or sometimes even aversion) toward EBP seem to be the most important barriers to the adoption and implementation of EBP in the Netherlands (Van der Zwet, Beneken genaamd Kolmer, & Schalk, 2011).

Acknowledging that the EBP process can only be successfully implemented in social work if practitioners believe it is both important and feasible, the current exploratory study assesses whether social workers currently enrolled in the MSW program (hereafter referred to as MSW students) are more oriented to the EBP process and are more engaged in the EBP process than social workers who are not currently enrolled (hereafter referred to as social workers). The MSW program aims to create professionals who focus on the effectiveness of interventions. Since a significant part of the MSW program consists of research methods courses, it is conceivable that MSW students are more likely to accept and engage in the EBP process than social workers. Furthermore, it is likely that social workers, generally only with higher professional education, did not have research methods courses in their educational programs. Also, it is likely that their educational programs did not focus on the effectiveness of interventions as the use of EBP is a recent paradigm shift.

To the authors’ knowledge, MSW students’ views about the EBP process and use of the EBP process have never been studied in the Netherlands. In the US, however, MSW students’ views about and use of the EBP process were assessed in a study that tested the effects of integrating EBP process material into a research curriculum for MSW students (Bender et al., 2014). Another US study (Mathiesen & Hohman, 2013) compared Bachelor and Master students enrolled in a social work school that added EBP to the curriculum. The current research builds on this prior research by assessing the orientation toward the EBP process of MSW students and comparing their orientation toward the EBP process to that of social workers. Identifying differences between these two groups in orientation toward and engagement in the EBP process can be helpful in suggesting ways to improve implementation of the EBP process.

The primary aim of this exploratory study was to answer the following two questions: (1) How do MSW students compare with social workers with regard to their orientation to the EBP process? (2) How often do MSW students and social workers engage in the EBP process?

The MSW program

The goal of the MSW program is to improve the quality of professional practice through the professionalization of experienced social workers (van Pelt et al., 2015). Social workers

who earned their MSW degree are expected to have thorough expertise regarding content, knowledge of interventions and intervention development, and a professional judgment of quality of social work practice. Also, MSW qualified workers should distinguish themselves from social workers with higher professional education, by critically reflecting on everyday practice and examining whether there are more suitable and better interventions (Diekman, Hoijsink, & van Pelt, 2013). While the EBP process is not mentioned explicitly in the goal and content of the MSW program curriculum, the curriculum does share some communalities with the EBP process. Both EBP and the MSW program emphasize the need for the student or practitioner to find and apply scientific evidence to specific situations. Furthermore, MSW students practice skills for evaluating social work practice and programs by conducting practice research in their own social work practice, based on a model for systematic knowledge development.

Method

Sample

The study sample was drawn from practicing social workers enrolled in the four MSW programs in the Netherlands and from practicing social workers currently employed in 22 social work organizations throughout the Netherlands. The sample of MSW students was obtained through the four UASs with a MSW program. In the school year 2012–2013, 179 students were enrolled in an MSW program. In order to improve response rates the researchers decided to both administer the survey in class and send out a digital survey by e-mail. The researcher requested the students to either fill in the paper survey in class or to fill in the digital survey at a more convenient time. Three UASs gave permission to distribute the survey in class and one UAS sent out the digital survey by e-mail. We used two strategies to approach social workers in order to maximize response rate: through the *MOgroep* (national sector association for social welfare and social services) and *Verdiwel* (professional association of CEOs of social welfare and social services organizations) (see Van der Zwet et al., 2016).

Data collection

All surveys (paper, digital and online) included a cover letter describing the research and informing the respondents of the confidential nature of their participation as well as of the importance of their participation. For both social workers and students the original EBP Process Assessment Scale (EBPPAS; Rubin & Parrish, 2011) was used to measure their views about the EBP process and implementation of the EBP process. This scale was developed and validated in the US by Rubin and Parrish (2011) to specifically tap into practitioner (and student) views regarding the EBP *process* (in contrast to evidence-based practices).

As reported by Rubin and Parrish (2011), the EBPPAS has an excellent internal consistency, with a Cronbach's α coefficient reported to be .94. The original EBPPAS includes five separate subscale constructs: (1) familiarity/self-efficacy with the EBP process (10 items), (2) attitudes toward the EBP process (14 items), (3) perceived feasibility to engage in the EBP process (5 items), (4) intentions to engage in the EBP process (8 items), and (5) actual self-reported EBP behaviors (8 items). The original EBPPAS includes 45 items that follow a five-point Likert scale and 10 of the items convey negative responses about EBP and are

reverse scored. The 45 items can be added up to get a composite score assessing the extent to which social workers are oriented to the EBP process. Higher scores indicate a more favorable response in each section and for the overall scale.

In the current study, however, two items were not included in the analysis. We removed item 4 ('Practitioners who engage in the EBP process show greater concern for client well-being than practitioners who do not engage in EBP') from the attitudes subscale because it had a negative Corrected Item-Total Correlation. This meant the item was measuring something different from the scale as a whole. Furthermore, in the current study, item 5 from the intentions subscale was omitted in the MSW students survey due to a mistake. Therefore this item was not included in the analysis. In the current study, the internal consistency for the entire 43-item scale was excellent, with a Cronbach's α coefficient of .93. Our version demonstrated adequate reliability across subscales, including α s for familiarity/self-efficacy (.92), attitudes (.81) (without item 4), perceived feasibility (.68), intentions (.90) (without item 5), behaviors (.92).

Both social workers' and MSW students' surveys included the EBPPAS and respectively 13 and 12 background/demographic questions (e.g. age, gender, and self-reported familiarity with the EBP process). The EBPPAS (see Rubin & Parrish, 2011) was translated into Dutch separately by the researcher (RvdZ) and a professional translator (see Van der Zwet et al., 2016). The online, digital, and paper surveys were all tested with a convenience sample of social workers or students in order to identify and address possible problems.

This study was not subject to an institutional review board. In the Netherlands, the Central Committee on Research Involving Human Subject (CCMO, n.d.) indicates that only medical/scientific studies and studies in which persons are subject to procedures and/or are imposed to a way of behaving need to be approved by the Dutch Medical Research Involving Human Subjects Act (WMO).

Data analysis

Data analysis was conducted using SPSS version 19. Descriptive statistics are presented to provide an overview of the sample characteristics.

To assess whether the subsample of social workers was representative for the entire Dutch population of social workers with regard to age and gender, we used one-sample χ^2 tests. Furthermore, as the self-reported familiarity was skewed positively to a large extent, we used a Mann-Whitney U test to compare the self-reported familiarity means of social workers who completed the survey ($n = 341$) to 192 non-respondents who started the survey but did not complete it. To assess whether the subsample of MSW students was representative for the entire population of MSW students with regard to enrollment in the four UASs, age and gender, we used one-sample χ^2 tests.

Independent t tests were used to compare social workers' and MSW students' mean age and years of practice in social work. To compare the two groups regarding the frequency of the other sample characteristics (such as gender, age groups) we used χ^2 tests of independence. We used independent-samples t -tests to compare the mean scores of the two groups on the five subscales as well as on the overall score. For all t tests examining group differences, an effect size using eta-squared (η^2) was also calculated to provide an indication of the magnitude of the effect. The guidelines for interpreting the eta-squared values are: .01 = small effect, .06 = moderate effect, .14 = large effect (Cohen, 1988). The following formula was used to calculate eta-squared: $t^2/t^2 + (N1 + N2 - 2)$.

To compare social workers and MSW students regarding the frequency of the eight behavioral items from the behaviors scale, we used χ^2 tests of independence. To simplify this analysis, the five-point scale was collapsed into two categories; very often/often versus the less frequent categories (never, rarely, some of the time).

Results

Response rate and sample characteristics

Overall, 992 social workers were invited to participate in this study, 565 social workers started the questionnaire and 373 social workers completed the questionnaire. Since we wanted to examine practitioners' attitudes, we excluded 32 respondents who reported working in management or policy and research departments. This resulted in a sample of 341 social workers (373 – 32), providing a 34.4% response rate (341/992). The 341 social workers who completed the questionnaire also completed all scale items as it was not possible to skip questions. Overall, 179 MSW students were invited to participate in the study, 68 of whom returned the survey. 14 MSW students who had not completed all the questions were excluded (68 – 14 = 54). Furthermore, we excluded 22 respondents who reported working as nurses (Master Healthcare and Social Work), as social work educators or in management or policy departments (54 – 22). This resulted in a sample of 32 MSW students, providing a 17.9% response rate (32/179).

The sample characteristics for the social workers and MSW students in this study are presented in Table 1. There was no statistically significant difference between the proportion of males and females in the social workers sample and in the MSW students sample. There

Table 1. Sample characteristics and background variables, for social workers and MSW students.

Characteristics	Social workers (<i>n</i> = 341)		MSW students (<i>n</i> = 32)		<i>t</i>	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Age	43.37	11.89	35.77	8.30	4.80***	.06
Years of practice in social work	14.32	10.30	10.97	5.37	3.04**	.02
	<i>n</i>	%	<i>n</i>	%	χ^2	
Gender						
Male	83	24.3	10	31.3	0.75	
Female	258	75.7	22	68.8		
Age groups						
<29	56 _a	16.4	11 _a	34.4	13.19**	
30–39	76	22.3	10	31.3		
40–49	78	22.9	8	25.0		
50>	131 _b	38.4	3 _b	9.4		
Highest degree ^a						
Intermediate vocational education	34	10	0	0		
Higher vocational education	275	80.6	32	100		
Master	16	4.7	0	0		
Other	16	4.7	0	0		
Field of practice ^a						
Youth	66	9.4	13	40.6		
Adults	186	54.5	5	15.6		
Elderly	38	11.1	1	3.1		
Specific vulnerable groups	42	12.3	3	9.4		
Other	9	2.6	10	31.3		

^aHighest degree and field of practice had too many cells with an expected frequency less than 5 to report nonparametric statistics. Frequencies sharing common subscript differ significantly from each other at the .05 level. ***p* < .01; ****p* < .001.

was a statistically significant difference ($t(371) = 4.8, p < .001$) in the mean age of the social workers sample ($M = 43.4, SD = 11.9$), as compared with the MSW students ($M = 35.8, SD = 8.3$). This was a moderate effect ($\eta^2 = .06$). The one-sample χ^2 test showed a statistically significant difference ($\chi^2 = 13.19, df = 3, p < .01$) in the proportion of respondents in the various age categories of the social workers sample and the MSW students sample (see Table 1). The proportion of social workers in the <29 category is significantly smaller than the proportion of MSW students in the <29 category and the proportion of social workers in the >50 category is significantly larger than the proportion of MSW students in the >50 category. Furthermore, there was a statistically significant difference ($t(371) = 3.0, p < .01$) in the mean 'years of practice in social work' of the social workers sample ($M = 14.3, SD = 10.3$), as compared with the MSW students ($M = 11.0, SD = 5.4$). However, this effect was small ($\eta^2 = .02$). While all MSW students had a higher vocational education degree, only 80% of the social workers did. The largest proportion of social work respondents worked with adults ($n = 186, 54\%$), while the largest proportion of MSW students worked with youth ($n = 13, 40.6\%$).

Sample representativeness

With regard to age and gender the subsample of social workers was representative for the entire Dutch social worker population (61,500). The one-sample χ^2 test showed no statistically significant difference ($\chi^2 = 5.1, df = 3, p = .17$) in the proportion of respondents in the various age categories of the sample (see Table 1) and the entire population of Dutch social workers (<29: 16.2%, 30–39: 20.6%, 40–49: 28.2%, >50: 35%). There was no statistically significant difference ($\chi^2 = 1.2, p = .27$) in the proportion of males and females of the sample (male: 25% male, female: 75%) and the entire population of Dutch social workers (male: 27%, female: 73%).

Furthermore, the respondents are perhaps more likely to be familiar with the EBP process than the non-respondents, as it is conceivable that potential respondents who are familiar with the subject of the survey are more likely to respond than potential respondents who are not familiar with the subject of the survey. Therefore, we also compared the self-reported familiarity mean scores. The Mann–Whitney U test showed a significant difference in self-reported familiarity scores ($Z = -2.69, p = .01$). Social workers who did complete the survey ($n = 373$) had an average score of 295.13, while non-respondents (who did not complete the survey, but did answer the first question regarding self-reported familiarity) ($n = 192$) had an average score of 259.43. This indicates that with regard to self-reported familiarity the sample was probably not representative for the larger social worker population.

In order to assess the degree of representativeness of the subsample of MSW students we asked the four UASs to provide us with information about the number, gender, and age of students enrolled in the program. The one-sample χ^2 test showed that there was a statistically significant difference ($\chi^2 = 19.37, df = 3, p < .001$) between the proportion of respondents that were enrolled in the various UASs of the sample and the entire population of MSW students (see Table 2). There was no statistically significant difference ($t(209) = 1.89, p = .06$) in the mean age of the MSW students sample ($M = 35.77, SD = 8.30$), as compared with the mean age of the entire population of MSW students ($M = 39.16, SD = 9.52$). There was no statistically significant difference ($\chi^2 = 0.06, df = 1, p = .81$) in the proportion of males and females of the sample (male: 31.3% male, female: 68.7%) and the entire population of

Table 2. Profile of participating MSW students in sample and total population of MSW students.

	Sample (<i>n</i> = 32)		Total population of MSW students (<i>n</i> = 179)			
	<i>n</i>	%	<i>n</i>	%	χ^2	
Universities of applied sciences						
Amsterdam University of Applied Sciences	12 _a	37.5	29 _a	16.2	19.37***	
HAN University of Applied Sciences	14 _b	43.8	42 _b	23.5		
Hanze University of Applied sciences	2 _c	6.2	49 _c	27.3		
Saxion University of Applied Sciences	4 _d	12.5	59 _d	33.0		
Gender						
Male	10	31.3	49	27.4	0.06	
Female	22	68.7	130	72.6		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>t</i>	η^2
Age	35.77	8.30	39.16	9.52	1.89	.006

Note: Frequencies sharing common subscript differ significantly from each other at the .05 level.

*** $p < .001$.

MSW students (male: 27.4%, female: 72.6%). Therefore, with regard to age and gender, the sample of MSW students was representative of the larger population of MSW students.

Social workers' and MSW students' orientation toward the EBP process

Independent *t* tests were conducted to compare the two groups on each of the five subscales (self-efficacy, attitudes, perceived feasibility, intentions and behaviors) as well as the overall scale score (orientation toward EBP). There were significant differences in scores on each of the five subscales as well as on the overall scale score for social workers and MSW students (see Table 3). The MSW students ($M = 3.59$, $SD = 0.41$) had significantly higher scores on orientation toward the EBP process than the social workers ($M = 2.92$, $SD = 0.39$), $t(371) = -9.35$, $p < .001$. The effect size, calculated using eta-squared, was large ($\eta^2 = .19$). The MSW students ($M = 3.67$, $SD = 0.43$) reported significantly higher scores on attitudes toward the EBP process than the social workers ($M = 3.19$, $SD = 0.34$), $t(371) = -7.55$, $p < .001$. The magnitude of the effect was moderate to large ($\eta^2 = .13$). The MSW students ($M = 3.71$, $SD = 0.50$) reported significantly higher scores on intentions to engage in the EBP process than the social workers ($M = 2.83$, $SD = 0.67$), $t(371) = -7.27$, $p < .001$. The effect size was moderate to large ($\eta^2 = .13$). The MSW students ($M = 3.36$, $SD = 0.59$) reported significantly higher scores on the behaviors subscale than the social workers ($M = 2.31$, $SD = 0.78$), $t(371) = -9.30$, $p < .001$. The effect size was moderate to large ($\eta^2 = .13$). The MSW

Table 3. Coefficient α , mean score, standard deviation and per-item mean on entire scale and subscales, for social workers and MSW students ($n = 373$).

	α	Social workers (<i>n</i> = 341)	MSW students (<i>n</i> = 32)	<i>t</i>	η^2
		<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
Orientation toward EBP (43)	.93	2.92 (0.39)	3.59 (0.41)	-9.35***	.19
Familiarity/Self-efficacy (10)	.92	3.09 (0.69)	3.76 (0.58)	-5.34***	.07
Attitudes (13)	.81	3.19 (0.34)	3.67 (0.43)	-7.55***	.13
Perceived feasibility (5)	.68	3.96 (0.50)	3.24 (0.63)	-2.99**	.02
Intentions (7)	.90	2.83 (0.67)	3.71 (0.50)	-7.27***	.13
Behaviors (8)	.92	2.31 (0.78)	3.36 (0.59)	-9.30***	.13

Note: EBP = evidence-based practice.

** $p < .01$; *** $p < .001$.

students ($M = 3.76$, $SD = 0.58$) reported significantly higher scores of familiarity/self-efficacy with the EBP process than the social workers ($M = 3.09$, $SD = 0.69$), $t(371) = -5.34$, $p < .001$. However, this was a moderate effect ($\eta^2 = .07$). The MSW students ($M = 3.24$, $SD = 0.63$) reported lower feasibility ratings than the social workers ($M = 3.96$, $SD = 0.50$), $t(371) = -2.99$, $p < .01$. However, this was a small effect ($\eta^2 = .02$).

Social workers' and MSW students' engagement in the EBP process

The EBPPAS behaviors subscale assesses seven behaviors related to the EBP process, followed by a question focusing on the implementation of all steps of the EBP process. These items and a comparison of the frequency ('very often' or 'often') with which social workers and MSW students engage in these behaviors are displayed in Table 4. As shown in the table, MSW students tended to report 'reading about research evidence to guide their practice decisions' (75%) more frequently than social workers (10.6%), $\chi^2 = 85.29$, $df = 1$, $p \leq .001$. MSW students also tended to report 'reading research-based practice guidelines to guide practice decisions' (68.8%) more frequently than social workers (12%), $\chi^2 = 63.08$, $df = 1$, $p \leq .001$. Approximately 59.4% of the MSW students reported 'using the Internet to search for the best research evidence to guide practice decisions' often or very often as opposed to 12.3% of the social workers, $\chi^2 = 43.98$, $df = 1$, $p = .001$. Approximately 78% of MSW students reported evaluating their practice often or very often (as compared with 40.5% of social workers), $\chi^2 = 15.37$, $df = 1$, $p \leq .001$. However, this item may have been interpreted by some respondents to mean any type of practice evaluation (perhaps including unsystematic evaluations based on subjective judgments) (Parrish & Rubin, 2012). Approximately 43.8% of the MSW students reported 'involving clients in deciding whether they will receive an

Table 4. Cross-tabulation of 'often or very often' responses to behavioral scale items, for social workers and MSW students.

	Social workers ($n = 341$)		MSW students ($n = 32$)		χ^2 ($df = 1$)
	n	%	n	%	
<i>Response</i>					
I use the Internet to search for the best research evidence to guide my practice decisions	42	12.3	19	59.4	43.98***
I read about research evidence to guide my practice decisions	36	10.6	24	75	85.29***
I read research-based practice guidelines to guide my practice decisions	41	12	22	68.8	63.08***
I rely on research evidence as the best guide for making practice decisions	30	8.8	7	21.9	4.23*
I inform clients of the degree of research evidence supporting alternative intervention options	30	8.8	12	37.5	21.33***
I involve clients in deciding whether they will receive an intervention supported by the research evidence	36	10.6	14	43.8	24.98***
I evaluate the outcomes of my practice decisions	138	40.5	25	78.1	15.37***
I engage in all steps of the EBP process	4	1.2	8	25.0	45.96***

* $p < .05$; *** $p < .001$.

intervention by the research evidence' often or very often as opposed to 10.6% of the social workers, $\chi^2 = 24.98$, $df = 1$, $p \leq .001$. Approximately 37.5% of the MSW students reported 'informing clients of the degree of research evidence supporting alternative intervention options' often or very often as opposed to 8.8% of the social workers, $\chi^2 = 21.33$, $df = 1$, $p \leq .001$. Approximately 25% of the MSW students reported implementing all steps of the EBP process often or very often (as compared with 1.2% of social workers), $\chi^2 = 45.96$, $df = 1$, $p \leq .001$. Approximately 21.9% of the MSW students reported 'relying on research evidence as the best guide for making practice decisions' often or very often as opposed to 8.8% of the social workers, $\chi^2 = 4.23$, $df = 1$, $p \leq .05$.

Discussion and applications to social work

This was the first exploratory study in the Netherlands to compare MSW students' and social workers' orientations toward and engagement in the EBP process. It found that MSW students in our sample were more strongly oriented toward the EBP process than social workers. This significant effect was large. Furthermore, MSW students also had more positive attitudes toward EBP than social workers, more intentions to engage in the EBP process and actually engaged more in the EBP process (all with a medium to large effect). MSW students also were more familiar with the EBP process than social workers (moderate effect). However, MSW students were less positive about the feasibility of implementing EBP in practice than social workers, although the effect size was small. These results are encouraging as they indicate that the MSW students in our sample are more likely to adopt and implement EBP. However, research into the implementation of EBP has found that while the attitudes, skills and knowledge of practitioners play an important role in the uptake of EBP, significant barriers to EBP implementation exist that are beyond the control of individual practitioners (Gray, Joy, Plath, & Webb, 2013). Additional barriers are related to the research environment, agency culture, and allocation of resources to staffing, supervision, library resources, information technology, and training in organizations. Social work organizations and policy-makers need to address these barriers also in order to improve EBP implementation.

Nevertheless it is encouraging that 75% of the MSW students in our sample reported that they read research evidence to guide practice decisions 'often or very often,' as opposed to 10.6% of the social workers. Furthermore, it is also encouraging that 21.9% of MSW students reported 'relying on research evidence as the best guide for making practice decisions' often or very often as opposed to 8.8% of social workers and that approximately 25% of MSW students reported implementing all steps of the EBP process often or very often as opposed to 1.2% of social workers. However, in light of the low percentage of MSW students that reported 'relying on research evidence as the best guide for making practice decisions' often or very often and the low percentage that reported implementing all steps of the EBP process often or very often, one could also see a need for improvement.

There are certain limitations to be considered in interpreting our findings. We were able to obtain a relatively large total number of social workers ($n = 341$), providing a 34% response rate. However, it should be taken into account that the findings are based on only 0.5% of a total population of 61,500 social professionals. Furthermore, the results may be limited by a self-selection bias as we were not able to draw a random study sample. Although the sample was representative for the entire Dutch population of social workers with regard to

age and gender, it is conceivable that organizations that agreed to participate in the study and respondents may have been more oriented to the EBP process than non-respondents. The findings of the sample of MSW students may be limited by a self-selection bias as well as we did not draw a random study sample. Although we were able to base our findings on 17.9% of the total population of 179 MSW students, it is conceivable that the MSW students who responded were more oriented to the EBP process than non-respondents. Furthermore, as with all surveys, there is a potential social desirability bias.

Although it is not possible to make generalized claims based on this study because of these limitations, the study's findings are nevertheless suggestive of some important issues for social work practice, education and research. In order to be able to generalize the findings it is important to repeat this study in the future with a larger and randomized sample of MSW students. With regard to social work practice, we found that the MSW students in our sample are more strongly oriented toward the EBP process than social workers. Therefore, we suggest policy-makers to consider focusing on MSW level social workers when developing future initiatives to improve the implementation of the EBP process in practice. Also, the results signal a need for providing EBP-related training and continuing education for social workers. Furthermore, social work organizations should be aware that the MSW students in our sample were less positive about the feasibility of implementing EBP in practice than social workers. It may be that social workers enrolled in the MSW program, in conducting practice research in their own social work practice and trying to find and apply scientific evidence to specific situations (as part of their program), are more aware of feasibility issues than social workers. In order to improve EBP implementation, social work organizations may want to address these feasibility issues, as this may result in greater intentions for using the EBP process after graduation.

With regard to social work education, we found that the MSW students in our sample are more positively oriented toward the EBP process. This might be considered a surprising finding because the EBP process is not explicitly part of the MSW curriculum, although it does emphasize the need for the student to find and apply scientific evidence to specific situations. However, our results are consistent with the results of a quasi-experimental examination of integrating EBP process materials into an existing MSW program evaluation curriculum. This US study showed that both the EBP process and the traditional program evaluation curriculum led to increased familiarity and increased positive attitudes toward and engagement in EBP, although the EBP process curriculum was associated with an increased sense of EBP-related familiarity more than the traditional program evaluation curriculum (Bender et al., 2014). Furthermore, another US study (Mathiesen & Hohman, 2013) which compared Bachelor and Master students enrolled in a social work school that added EBP to the curriculum, found that Master students rated their knowledge and use of EBP significantly higher than Bachelor students. These findings indicate that explicitly integrating the EBP process, through assignments that require the students to follow the steps of the process, may enhance students' familiarity significantly. As we did not use a pre-posttest design we do not know whether the MSW program caused the stronger orientation toward the EBP process. It is possible that students who enrolled in the program were already more open to EBP to begin with. Future research should therefore seek to evaluate the influence of the MSW program in changing the knowledge, attitudes, and competencies of students with regard to the EBP process using a pre-posttest design. In addition, as the MSW students were less positive about the feasibility of implementing EBP in practice,

these studies should not only assess whether these MSW programs still have effects once students are graduated, but should also investigate the barriers to EBP implementation. The question about the feasibility of EBP implementation in practice became the focus of a later qualitative study that explores the barriers to EBP implementation in a Dutch social work organization.

Nevertheless, it is conceivable that the MSW program did improve Dutch MSW students' orientation to the EBP process, as Bender et al.'s findings suggest that students' knowledge and perceptions of EBP are shifting during the process of being educated about scientific evidence as part of their MSW programs. However, the low percentages of MSW students who reported 'relying on research evidence as the best guide for making practice decisions' often or very often and who reported implementing all steps of the EBP process often or very often, might also indicate a need for improvement of the MSW program. Therefore, in light of the findings of Bender et al. and Mathiesen and Hohman, we suggest UASs to add components to the MSW curriculum that explicitly emphasize the EBP process. Educators may want to include materials and assignments focusing on conceptualizing and applying the EBP process in social work practice, and more specifically education on methods for formulating EBP questions, searching literature, appraising validity of evidence, and assimilating evidence into agency and program environments. In addition, social work educators should be aware that our findings show that MSW students were less positive about the feasibility of implementing EBP in practice than social workers. Educators may want to address these feasibility issues by teaching MSW students how to solve the barriers related to the integration of research and practice.

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